What is claimed is:

1. A method for emulating execution of instructions designed for a target system in a host system, comprising the steps of:

determining a variance in execution speed between the target system and the host system; and

dynamically adjusting the execution speed of the host system based on the variance to conform to the execution speed of the target system.

2. A method as in claim 1, wherein the step of determining the variance comprises the steps of:

identifying a block of instructions and associated processing time required by the target system to execute said block of instructions;

determining an actual real time for executing the block of the instructions by the host system;

comparing the processing time to the actual real time to determine the variance.

3. A method as in claim 2, wherein the execution speed of the host system for a subsequent block of instructions is adjusted based on the variance determined for a preceding block of instructions.

4. A method for simulating an operating speed of processing in an emulated target

system corresponding to a rate of execution of instruction cycles on at least one host system, comprising the steps of:

defining a benchmark sample by selecting a reference determined by an arbitrary time quantum of said speed;

multiplying said reference by said rate of execution of instruction cycles;

tracking said instruction cycles executed and determining whether a threshold value has been exceeded;

interrupting said processing when said threshold value has been exceeded;

determining an elapsed time period by querying a timing source which is associated with the host system and unaffected by said processing;

determining a timing reference by comparing said elapsed time with said time quantum; and,

using said timing reference to adjust said rate so as to simulate said operating speed of the target system.